Babati team meeting Day 2

Team went through points raised yesterday and discussed those to have a common understanding, find out where different work packages converge/integrate and revisit indicators for monitoring progress.

* Microdosing is being tested by Lyimo (addressing the sustainability issue)
* Water management can be looked at interms of the 3 ecozones (at Long, we can look at erosion control), at lower level, supplemental irrigation e.g., for vegetables, fodder production under irrigation for dry season feeding, increasing water infiltration in Sabilo area which is drier, using fodder species in intercropping at Long to help stabilize soils.

Revision of water/soil conservation structures will require policy but we will not consider that now.

Conservation agriculture is key for crop productivity for Babati district and the results from AR could be included in extension communication.

Work package on irrigation? No, rather integrate into existing WP.

* Social science is lacking and we have not made visible the value chain research including market issues:

This may limit adoption and we need to bring them on board. But Mateete is considering a socio-economist to come on board. Technologies need to be evaluated interms of their rate of return. Need to know what happens at the landscape level when we intensify. Need to also have a socio-economist at the national level apart from the one that WageningenUniversity is recruiting. Some socio-economic surveys were conducted in 2006-8, perhaps not in AR actual villages, and need to be supplemented by additional data. This provides some kind of background for the sites. Team needs to know the counterfactual villages.

We need a well-planned proposal on how to have social scientist so we know how to proceed. We need capacity inbuit within the SARI system rather than scientist coming in and out to support the socio-economic side.

Lyimo through TLII will link farmers to pigeon pea export traders. Farmers should be made aware of the grading system and the stakeholder will provide training. Mali variety of pigeonpea is the only one released and in use in Babati.

* Integration: we need practical ways to ensure we have ongoing integration:

Post-harvest level scientist will link with agronomists and breeders.

Reflect the linkages in below matrix on our individual proposals and share this among teams.

Matrix of work packages

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | WP1: Biophysical characterization | WP2: improved food crops | WP3: Forages | WP4: Intensification (pigeon peas) | WP5: Mycotoxins | WP6: Post harvest | WP7: Vegetables | WP8: Poultry |
| WP1: Biophysical characterization | Soil and agronomic management information, landscape level flows, water management | * Increasing bean productivity (soil P+ some micronutrients) * (relay cropping with climbing beans for staking) | * Desmodium for soil/water mgt and feed * Crop residue quality in response trials | Farmyard | Soil management | * Linking management with pre/post-harvest * Same farmers | Cropping systems with WP4 also |  |
| WP2: improved food crops |  | Varieties suitable for intercropping, nutrition (beans staking techniques, Minjingu sources) |  | Best bet varieties |  |  |  |  |
| WP3: Forrages |  | Forage suitability | improved forages for land management, improved utilization of forages |  |  |  |  |  |
| WP4: Intensification |  |  |  | variety suitability, microsing, market access |  |  | Cropping systems with WP1 also |  |
| WP5: Mycotoxins |  |  |  |  | risks to food and feed, and their value chains that increase susceptability | Use Same materials, same sites |  | feed health/risk assesment and  ration formulation |
| WP6: Post harvest |  | Storage |  |  | Storage | storage to reduce losses, prevent contamination |  |  |
| WP7: Vegetables | Bean and food preparations/enrichments |  |  |  |  | Women prepare complementary foods. Bases vsfortificant | biotic constraints identification, improved varieties, optimized IPM, market access |  |
| WP8: Poultry |  |  |  |  |  |  |  | Improved poultry rations, animal health |

Private sector links to all the WPs [2 (food crops) 4 (pigeon pea intensification), 6 (post harvest),7 (vegetables)].

Mode of operation: village the basic unit. We need several villages for a statistical sample. But sample size depends on the specific objectives. We should then look at n as farmers rather than villages. We are not only scaling technologies and we need to see what else we are scaling, e.g., incomes, environmental sustainability, e.t.c. why talk of N when villages are selected? Because we need to come back with evidence that the varieties we are testing, for example, are really good for the villages. So we need to do some analysis to show that these varieties are good. Then we need to ask ourselveswhat the best practices for scaling out is.

<<>>we have no information on socio-economic conditions of the villages. If these were there, we would then see how to include the variability. So we go ahead with the 6 we have and get another 6 as counterfactuals where biophysical/baseline characterization will be done. However, although we do science in the 6 villages, we should think of scaling out in many more additional villages and the private sector in the project will do that (they however need information of their interest from scientists). Private sector will work with package 4 on pigeonpeas to start with.

Joint analysis in different WP: this will arise from integration

Indicators: (which ones since AR has indicators already?) We need indicators from each of the WP and this need to be coordinated (by Mateete and IFPRI). These are also best captured in a logical framework.

Indicators are based on outcomes rather than indicators that can help us measure our research progress/impact. We are evaluated also in our individual institutions so we need indicators. We should generate output indicators so we can have outcome indicators. The AR outcome indicators are easy to report.

Include IFPRI in reporting of project progress, and invite them also to visit activities.

Markets: need to conduct evaluation of varieties with the private sector

Modeling to integrate components: to put mycotoxins, beans, maize e.t.c., together to get further insights into decision-making systems framework of farmers and what happens to the livehoods if we introduce a specific crop. We need W group to evaluate xxx and mateete should coordinate that since he has knowledge of where we are in different WP.

Coordinated extension communication: involve them in choice of farmers, setting up and data collection, and provide them copies of results. District level officers need facilitation (centrally) to move around and monitor progress and scaling up of technologies (e.g. following up extension personnel on the ground). Resources should be provided for this.

Discussed whether protocol for variety testing and recommendation is being followed: yes

Gender and gender relations: need to characterize who the beneficiaries are. Gender should be upgraded in the general proposal writing. To be done at overall level and also at WP level. Each WP can do something on gender e.g. including females in trials and field-days, assess labour requirements for both gender. Gender must appear in all the WP. Will need help from a gender specialist so that the gender issues are well addressed. “there is good gender and bad gender, we need good gender”.

Timeline for each WP to be prepared individually and harmonized tomorrow as a group. Make detailed activities for year 2013/14 with monthly timesteps and general for the 2014/15 period.

Expanding is not for all activities or WP. Only those that make sense should extend.

**DAY3**

# Proposal Babati team 2013/14

# Project-level Research questions for 2012-13

## Relating to Research Output 1:

## What are the key biophysical and socio-economic constraints to crops and livestock production at farm and landscape levels? (all work packages)

## Which opportunities exist for enhancing productivity and resource use efficiencies for different farm typologies? (all work packages)

## To what extent can food and feed safety be improved through appropriate management of mycotoxins and pesticide? (work package 5)

1. To what extent will access to improved post-harvest technologies improve adoption of new varieties, food security, market opportunities and income for small-holder farmers

Relating to Research Output 2

## Which promising and recently released improved varieties of maize, grain legumes, vegetables and fodder crops can be best incorporated into smallholder systems of Babati at both farm and landscape levels? (work packages 2 and 3)

1. To what extent can we integrate fodder, crop residues and healthy livestock in the cropping systems (WP3 and WP8)

## Which accompanying technologies complement adoption of the new crops (work package 4)

## What potential does integrating postharvest nutrition technologies into the maize-based farming systems have on increased agricultural productivity (work package 6)

Activities planning

|  |  |
| --- | --- |
| Oct-13 | * Inception team meeting in babati, site selection where needed * Processing and storage studies for pigeon peas and vegetables |
| Nov-13 | * Joint training with entire team (where relevant) * Summary fact sheet from each work package * Establishment of trials and demonstrations |
| Dec-13 | * Establishment of trials and demonstrations |
| Jan-14 | * Establishment of trials and demonstrations |
| Feb-14 | * Joint training with entire team (where relevant) * Field days * Farmer evaluation |
| Mar-14 | * Post planting evaluation |
| Apr-14 | * Poultry surveys |
| May-14 | * Joint training with entire team (where relevant) * Field days |
| Jun-14 | * Post harvest evaluation (mycotoxins, organoleptics, fodder) |
| Jul-14 |  |
| Aug-14 | * Joint training with entire team (where relevant) * Meeting for team review and planning for 2014/15, in Dodoma |
| Sep-14 |  |
| Oct-14 |  |

|  |  |  |
| --- | --- | --- |
| **WP** | **Deliverable** | **Indicator** |
| 1 | Optimal application rates for key nutrients for different soil conditions for maize and beans determined | N and P application rates for maize and beans determined |
|  | Manure chemical quality in different villages determined | Quality in 6 villages |
| 2 | Preferred and marketale bean varieties identified | 3 climbers and 3 bush beans per Agro-zone or per gender |
|  | Appropriate staking options identified (intercropping options) | At least 2 options |
|  | Drought torelant/ insect resistant maize varieties suitable for intercropping identified | At least one variety |
|  | QPM varieties suitable for intercropping identified | At least one variety |
| 3 | High yielding forage varieties introduced | At least 2 per Agro-ecozone |
|  | Feed ration for chicken | At least 3 ration |
|  | Maize varieties identified for food and feed | 2 varieties |
| 4 | P source for microdosing identified | At most 2 sources |
|  | Most preferred maize varieties for the identified P source | At most 2 varieties |
|  | PPP for the technologies | One partnership facilitated |
| 5 | Prevalence data for mycotoxins | % and level in 3 villages |
|  | Awareness raising strategy developed | 1 package |
|  | Control interventions identified | At least 4 interventions |
| 6 | Storage, processing and properties of new varieties identified | At least 2 cost-effective technologies  At least 1 variety with preferred quality characteristics |
| 7 | Key pests and diseases identified | 2 tomato varieties selected |
|  | Management strategies developed | IPM strategy implemented/publicized |
|  | Market options for tomatoes | 3 new market support systems-linkages |
| Cross cutting | Prevalence of key pests and diseases for maize, legumes and forage | % and level of each |
|  | Management strategy developed | One package |